

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Spectrum Policy Task Force Seeks)	ET Docket No. 02-135
Comment on Issues Related to)	
Commission's Spectrum Policies)	

COMMENTS OF TELESAT CANADA

Telesat Canada ("Telesat") is pleased to submit the following comments to the Federal Communications Commission's ("FCC" or "the Commission") Spectrum Policy Task Force ("the Task Force"). By way of introduction, Telesat is a Canadian-licensed satellite operator with three Fixed Satellite Service ("FSS") satellites, Anik E1, E2 and F1, on the FCC's Permitted Space Station List.¹ Telesat also has applications before the Commission to add a fourth FSS satellite, Anik F2, to this list, and for a declaratory ruling to offer two-way broadband services at Ka-band in the U.S market using this satellite.² In addition, Telesat currently operates a Direct Broadcast Satellite ("DBS") providing Direct-to-Home and other services in Canada, and will be launching a second DBS satellite later this year. As Canada and the United States share a common border and license satellites in close proximity across the North American arc, Telesat is heavily involved in international spectrum coordination discussions either directly with its U.S. counterparts or in supporting the Canadian Administration in its negotiations with the U.S. Administration. Given this fact and Telesat's presence in the U.S. satellite marketplace, the findings and recommendations of the Task Force could have a significant direct bearing on Telesat's present and future North American operations.

¹ *Request to Eliminate Conditions on E1 and E2's Inclusion on the Permitted Space Station List*, DA 01-2051 16 FCC Rcd 15979 (International Bureau, 2001) (Order); and *Anik F1 Permitted Space Station List Order*, DA 00-2835, (International Bureau, 2000).

² *Petition for Declaratory Ruling to Add Anik F2 to the Permitted Space Station List*, File No. SAT-PDR-20010906-00082 (filed September 6, 2001); and *In the Matter of Telesat Canada – Petition for Declaratory Ruling to Serve the U.S. Market Using Ka-band Capacity on Anik F2*, File No. SAT-PDR-20020321-00027 (filed March 21, 2002).

The Task Force has been given a broad mandate to address many important issues. Telesat's comments which follow will focus on those issues and questions in the Public Notice which pertain to satellite operations and will be from the perspective of a geostationary satellite facility operator that is not licensed by the United States administration.

Market-Oriented Allocation and Assignment Policies

Question 5: Should more spectrum be set aside for operating unlicensed devices? Should the kinds of permissible unlicensed operations be expanded? What changes, if any, should be made to the rules to accomplish this? Because of the commons aspects of unlicensed use, is there concern that, as congestion rises, spectrum may not be put to its highest valued use? If so, what policies might be considered to anticipate this problem?

Unlicensed radio devices typically use very low power levels and are designed to operate with restricted coverage. The potential for harmful interference from a single unlicensed device is therefore very low. However, unlicensed devices typically may be deployed in very large numbers over widely dispersed geographical areas. Therefore aggregate interference can be a significant issue, both in the intended operational bands and in other bands as a result of unwanted emissions. This issue is a significant concern for satellite operators since satellite receive antenna coverage typically extends over large geographic areas – and therefore may encompass very large numbers of unlicensed devices. In such situations, the impact of the aggregate interference from unlicensed devices is to effectively increase the noise floor of the satellite receiver, with a resultant negative impact on system performance, capacity or both.

In light of the above, Telesat would encourage the Commission to consider the impact of aggregate interference in bands allocated to any satellite service (Earth-to-space) resulting from proposed spectrum use by unlicensed devices.

Interference Protection

Question 7: Are new definitions of "interference" and "harmful interference" needed? If so, how should these terms be defined?

The definitions of interference and harmful interference are contained in articles 1.166 and 1.169, respectively, of the International Telecommunications Union (“ITU”) *Radio Regulations*. Since interference transcends national borders, it is essential that the Commission follow these international definitions. Should it be felt that improvements should be made to these definitions, the U.S. should seek the appropriate amendments to the ITU *Radio Regulations*.

Question 16: Some parties assert that the Commission should adopt rules for interference that are based on economics, and not purely technical, in nature. They argue that efficient interference management should involve an economic balancing between the parties using the spectrum. Would greater use of these types of alternatives lead to more certain and expeditious resolution of interference issues?

Interference is a physical phenomenon and its effects are best analyzed through engineering analysis. Introduction of imprecisely defined economic considerations to the interference rules would:

- lead to increased uncertainty in the development of business plans and the securing of financing for new ventures,
- disadvantage services in the public safety and public service sectors that are operated on a non-profit basis,
- result in more protracted or intractable disputes over the impact of interference, and
- discourage innovation and competition through the protection of the established, economically strong incumbents at the expense of newcomers.

Spectral Efficiency

Question 20: Should the Commission consider ways to quantify or benchmark spectral efficiency in a way that permits fair and meaningful comparisons of different radio services, and if so, how would such comparisons be used in formulating spectrum policy?

While meaningful comparisons of spectral efficiency can be made within a given service, it is difficult, if not impossible, to compare spectral efficiencies across services. The Commission

has recognized this in its recent decision rejecting the proposals by the fixed service community for additional spectrum efficiency constraints on C-band earth stations.³

International Issues

Question 25: What role should international/global considerations play in spectrum policy in the United States? And conversely, how should U.S. preparations for regional and international meetings on spectrum policy take into account domestic spectrum policy decisions?

As a member of the ITU and a signatory of various bilateral and multilateral agreements, it is incumbent on the U.S. that domestic spectrum policy decisions are consistent with international and global policies. Should the U.S., as a result of domestic considerations, wish to alter these international or global policies, the appropriate method is through the ITU process and/or the re-negotiation of bilateral or multilateral agreements.

Question 26: How should the requirements for international coordination of satellite systems affect the U.S. assignment of satellite orbits and frequencies for domestic and international service?

Domestic assignments of satellite orbits and frequencies must take into account the requirements for international coordination, and in particular the priority rights of satellite filings under the ITU *Radio Regulations*. This would in no way preclude or hamper the Commission's ability to issue U.S. licenses as it chooses, but in issuing any such license where another operator has ITU filing priority, the Commission should continue the practice of informing the domestic licensee that access to an orbital location is "subject to the outcome of the international coordination

³ *FWCC Request for Declaratory Ruling on Partial-Band Licensing of Earth Stations in the Fixed-Satellite Service that Share Terrestrial Spectrum, FWCC Petition for Rulemaking to Set Loading Standards for Earth Stations in the Fixed-Satellite Service that Share Terrestrial Spectrum, Onsat Petition for Declaratory Order that Blanket Licensing Pursuant to Rule 25.115 (c) is Available for Very Small Aperture Terminal Satellite Network Operations at C-Band, Onsat Petition for Waiver of Rule 25.212 (d) to the Extent Necessary to Permit Routine Licensing of 3.7 Meter Transmit and Receive Stations at C-Band, Ex Parte Letter Concerning Deployment of Geostationary Orbit FSS Earth Stations in the Shared Portion of the Ka-Band*, Second Report and Order (adopted January 23, 2002) and Notice of Proposed Rule Making (issued October 24, 2000), IB Docket No. 00-203.

process” and that “the Commission is not responsible for the success or failure of the required international coordination” process.⁴

Question 27: Does the International Telecommunications Union (ITU) spectrum allocation process, as codified in the ITU Radio Regulations, facilitate or impede development of domestic spectrum policies?

There is no doubt that the ITU spectrum allocation process is time-consuming and can negatively impact the speed with which domestic decisions can be made. However, for many services, and in particular for satellite services, decisions of necessity must be made on a global basis. Unilateral decisions by any administration, including the U.S., that impact beyond that administration’s borders will ultimately lead to chaos and harmful impact on the world’s telecommunications.

Question 28: Are there ways in which the Commission can or should improve the coordination process with Canada and Mexico? If so, how?

Administrations in North America are fortunate that many coordination issues can be resolved bilaterally or trilaterally within the global framework of the ITU *Radio Regulations*. An example is the 1988 Arrangement between the U.S., Canada and Mexico concerning orbital positions in the C and Ku bands.

To the greatest extent possible, coordination of spectrum usage policies, as well as proposals to CITEL and the ITU, should be coordinated between these three administrations.

⁴ The FCC’s recent Second Round Ka-band authorizations followed this practice using this language. See, for example, *KaStarCom. World Satellite LLC; Application for Authority to Construct, Launch, and Operate a Ka-Band Satellite System in the Fixed-Satellite Service*, 16 FCC Rcd 14322, 14330 (2001) (Order and Authorization).

Telesat thanks the Commission for the opportunity to participate in this proceeding.

Respectfully submitted,
TELESAT CANADA

A handwritten signature in black ink, appearing to read 'Paul D. Bush', with a large, stylized initial 'P'.

Paul D. Bush
Vice President – Corporate Development

July 8, 2002